

REMARKS

Summary of the Office Action

The Office Action objects to claim 6-9, 12, and 15 as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim.

Claims 1-2, 4-5, 10-11, and 13-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,253,219 to *Xu et al.* ("*Xu*") in view of JP-8-013068 ("*JP'068*") and an article to *Saito et al.* ("*Saito*") entitled "A New Fabrication Process of TiNi Shape Memory Wire."

Claims 1-2, 4-5, 10-11, and 13-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Patent Publication No. 2002-356757 to *Kyo et al.* ("*Kyo*") in view of JP-A-9-176330 ("*JP'330*") and *Saito*.

Claims 1-2 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,641,364 to *Goldberg et al.* ("*Goldberg*") in view of JP'068 and *Saito*.

Claims 4-5, 11 and 13-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Goldberg* in view of JP'068 and *Saito*, and further in view of *Xu* as applied to claims 1-2, 4-5, 10-11, and 13-14 and JP'330.

Please note that the Office Action incorrectly identified the above Japanese patents as EPO numbers.

Summary of the Response to the Office Action

Applicants previously cancelled claims 3, without prejudice or disclaimer. Applicants amend claims 1 and 4-15 without prejudice or disclaimer, and add claims 15-21. Applicants respectfully submit that the features of the present invention are not taught or suggested by the applied references of record. Accordingly, claims 1-2 and 4-21 are presently pending.

Information Disclosure Statement

Applicants submitted Information Disclosure Statements on December 3, 2004, August 29, 2005 and May 1, 2008. Applicants thank the Examiner for acknowledging the Information Disclosure Statement by initialing the PTO 1449 form and returning a copy to Applicants.

Removal of *Kyo* and *Xu* as Prior Art

Kyo should not be considered as prior art under any subsection of 35 U.S.C. §§ 102 and 103. On August 29, 2005, Applicants filed a claim for priority and a certified copy of Japanese Application No. 2002/162287 which was filed in Japan on June 4, 2002. Pursuant to 37 C.F.R. § 1.55(a), Applicants submit concurrently herewith a verified translation of Japanese Application No. 2002/162287. The filing date of *Kyo* is December 13, 2002 which is after the priority date to which this application is entitled. Accordingly, *Kyo* should not be considered as prior art under any subsection of 35 U.S.C. §§ 102 and 103.

Xu was commonly owned by the assignee of the present application at the time the invention was made. As *Xu* qualifies as prior art only under 35 U.S.C. § 102(e), *Xu* cannot be used in a rejection under 35 U.S.C. § 103(a) against the present invention in accordance with 35 U.S.C. §103(c).

Therefore, the rejection of claims 1-2, 4-5, 10-11, and 13-14 under 35 U.S.C. § 103(a) as being unpatentable over *Xu* in view of *JP'068* and an article to *Saito*; claims 1-2, 4-5, 10-11, and claims 13-14 under 35 U.S.C. § 103(a) as being unpatentable over *Kyo* in view of *JP'330* and *Saito*; and the rejection of claims 4-5, 11 and 13-14 under 35 U.S.C. § 103(a) as being unpatentable over *Goldberg* in view of *JP'068* and *Saito*, and further in view of *Xu* as applied to claims 1-2, 4-5, 10-11, and 13-14 and *JP'330* is moot in light of the removal of *Kyo* and *Xu* as prior art. Accordingly, the rejection of claims 4-5, 11, and 13-14 should be withdrawn.

All Claims Comply With 35 U.S.C. § 103(a)

Claims 1-2 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Goldberg* in view of *JP'068* and *Saito*.

To establish a *prima facie* obviousness, there must be a finding that the prior art included each element claimed, a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that one of ordinary skill in the art would have recognized that the results of the combination were predictable. MPEP §2143(A).

The Office Action has not established a *prima facie* case of obviousness at least because *Goldberg* in view of *JP'068* and *Saito*, whether alone or in combination, fail to teach or suggest all the recited features of independent claim 1. Independent claim 1 recites, in part, “[a] shape memory alloy wire subjected to a cold drawing work, which comprises a shape memory alloy in a martensitic phase which assumes an austenitic phase or a martensitic phase through phase transformation temperatures, has a diameter of 60 μm or less, has a reverse transformation starting temperature of 130 °C or higher and a reverse transformation termination temperature of

at least 250 °C, and has a shrinking strain of 2% or more, wherein the shape memory alloy comprises a TiNi alloy in an Ni content of 49 to 52% by atom.” *Goldberg* in view of *JP’068* and *Saito*, whether taken alone or in combination, fail to teach or suggest at least these features of claim 1.

The Office Action states that “changes in [wire] size are not a matter of invention,” on page 6, section 11. While such a statement may be correct on its face, it obscures the fact that the present invention allows for the improvement of shape memory alloy wires at wire sizes previously unattainable. Further, The Office Action fails to notice that the base reference, *Goldberg*, is applied to ternary alloys *e.g.*, Ti-Pd-Ni and not a binary alloy *e.g.*, TiNi as recited in the claims. The difference in composition is significant and should not be overlooked.

Goldberg in view of *JP’068* and *Saito*, also fails to teach or suggest “a diameter of 60 µm or less, has a reverse transformation starting temperature of 130 °C or higher and a reverse transformation termination temperature of at least 250 °C, and has a shrinking strain of 2% or more, wherein the shape memory alloy comprises a TiNi alloy in an Ni content of 49 to 52% by atom,” as recited in claim 1. Both *JP’068* and *Saito*, teach a fine wire of 120 µm or less, but they fail to teach or suggest the above-mentioned transformation temperatures and shrinking strain rates for such wires.

Accordingly, *Goldberg* in view of *JP’068* and *Saito*, fails to teach or suggest each and every feature of claim 1. Thus, the rejection of claims 1, 2, and 10 should be withdrawn.

The Office Action also has not established a *prima facie* case of obviousness at least because there is no suggestion or motivation to combine *Goldberg* in view of *JP’068* and *Saito*.

To establish a prima facie case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings. See M.P.E.P. §§ 2142-2143. Applicants contend that the references are combined randomly in hindsight to try to arrive at the present invention. No reasons are provided that would lead a person of ordinary skill in the art to combine the cited references.

New Claims

Applicants respectfully request allowance of dependent claims 16-21, which depend from newly amended independent claim 1. The claims are allowable insofar as they recite the patentable combinations of features recited in their base claims, as well as reciting additional features that further distinguished over the applied prior art.

Accordingly, in view of the above amendments, claims 16-21 are allowable and pending for further consideration.

CONCLUSION

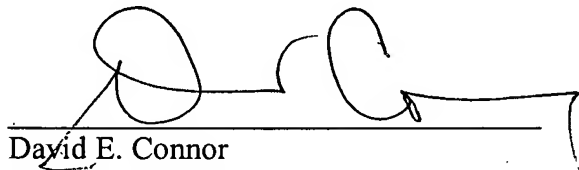
In view of the foregoing, Applicants respectfully request reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the Response, the Examiner is invited to contact the Applicants' undersigned representative to expedite prosecution.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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